AMENDMENTS

Please enter the following amendments into the claims of the subject application.

In the Claims:

1. (**Currently Amended**) A method for preparing a biopolymer array production system for operation, the method comprising:

providing a biopolymer array production system comprising:

a substrate station configured to retain a biopolymer array substrate;

a movable printhead system comprising a first printhead assembly; and

a computer processor configured to control said movable printhead system to form a biopolymer array on a substrate retained in said substrate station;

~~selecting~~ **replacing [[a]] said first** printhead assembly **with a second printhead assembly, wherein said first and second printhead assemblies are different and wherein said printhead assembly** ~~comprising~~ **comprises** multiple printheads **and one or more nozzle plates**, wherein each of said printheads comprises one or more wells, wherein each of said one or more wells comprises one or more nozzle regions, wherein each of said one or more nozzle regions comprises one or more nozzle rows and wherein each of said one or more nozzle rows comprises multiple nozzle orifices;

entering, by an operator **using an operator input device** or electronically reading **from electronic media**, printhead-related data **into said computer processor, wherein printhead-related data includes** ~~including criteria selected from~~ one or more of: the type of each of said printheads, number of said printheads of said printhead assembly, type of nozzle plate on each of said printheads, alignment method of said nozzle plate, number of wells per each of said printheads, number of nozzle orifices per well, number of nozzle rows per each of said printheads, spacing between said nozzle orifices, and spacing between said nozzle rows**,**

wherein said type of each of said printheads is selected from a piezo-based printhead, a thermal-based printhead or a resistance-based printhead; and

configuring, with [[a]] **said** computer processor, a printhead control routine based on said entered data, in order to control printhead function.

2. (Original) The method of claim 1, wherein a user interface prompts user entry of at least one of said criteria.

3. (Original) The method of claim 2, wherein a user enters at least one of said criteria.

4. (Previously Presented) The method of claim 1 wherein said type of printheads, number of said printheads, type of nozzle plate and alignment method are Printhead Assembly Objects, and said number of wells per each of said printheads, number of nozzle orifices per each of said wells, number of nozzle rows per each of said printheads, spacing between nozzle orifices and spacing between nozzle rows are Printhead Group Objects, as treated by said processor.

5. (Previously Presented) The method of claim 4, wherein, when one or more data selected from Printhead Assembly Objects is entered and one or more data selected from Printhead Group Objects is entered, said processor first configures a portion of said control routine based on said entered data from Printhead Assembly Objects, then configures another portion of said control routine based on said entered data from Printhead Group Objects in relation to said entered data from Printhead Assembly Objects.

6. (**Currently Amended**) A method for preparing a biopolymer array production system for operation, the method comprising:

providing a biopolymer array production system comprising:

a substrate station configured to retain a biopolymer array substrate;

a movable printhead system comprising a first printhead assembly; and

a computer processor configured to control said movable printhead system to form a biopolymer array on a substrate retained in said substrate station;

~~selecting~~ **replacing** **[[a]]** **said first** printhead assembly **with a second printhead assembly, wherein said first and second printhead assemblies are different and wherein said printhead assembly** ~~comprising~~ **comprises** multiple printheads **and one or more nozzle plates**, wherein each of said printheads comprises one or more wells, wherein each of said one or more wells comprises one or more nozzle regions, wherein each of said one or more nozzle regions comprises one or more nozzle rows and wherein each of said one or more nozzle rows comprises multiple nozzle orifices;

providing printhead-related data **into said computer processor, wherein said printhead-related data includes** ~~including~~ Printhead Assembly Object criteria and Printhead Group Object criteria, said Printhead Assembly Object criteria selected from the type of each of said printheads, number of said printheads of said printhead assembly, type of nozzle plate on each of said printheads and alignment method of said nozzle plate, said Printhead Group Object criteria selected from a number of wells per each of said printheads, number of nozzle orifices per well, number of nozzle rows per each of said printheads, spacing between said nozzle orifices and spacing between said nozzle rows, wherein said type of each of said printheads is selected from a piezo-based printhead, a thermal-based printhead or a resistance-based printhead; and

configuring, with **[[a]]** **said** computer processor, a printhead control routine based on said data by first producing a portion of said control routine based on said Printhead Assembly Objects, then producing another portion of said routine based on said Printhead Group Objects in relation to said Printhead Assembly Objects.

7. (Original) The method of claim 6, wherein an operator enters information corresponding to at least a portion of said printhead-related data.

8. (Previously Presented) The method of claim 6, wherein said printhead assembly comprises electronic media, and wherein said printhead-related data is read from said electronic media.

9. (Previously Presented) A method of producing a biopolymer array, the method

comprising:

providing a production system prepared according to the method of any of claims 1 through 7, and

controlling said system by said control routine to print a biopolymer array by ejecting reagent drops from any of said printheads spaced from a substrate surface during movement of said printheads and said surface relative to each other,

wherein said reagent drops are ejected according to a predetermined pattern onto said surface to produce said array.

10. (Previously Presented) The method of claim 9, wherein said biopolymers are polyncucleotides or polypeptides.

11. (Canceled)

12. (Previously Presented) A method of detecting the presence of an analyte in a sample, said method comprising:

producing a biopolymer array according to the method of claim 9;

contacting a sample suspected of comprising said analyte with said biopolymer array; and

detecting any binding complexes on the surface of said biopolymer array to obtain binding complex data.

13. (Original) The method of claim 12, wherein said analyte is a nucleic acid.

14. (Previously Presented) A method comprising transmitting data resulting from a detecting according to claim 12, from a first location to a remote location.

15. (Previously Presented) A method comprising receiving data representing a result of a reading obtained by the method of claim 12.

16. (Original) A method comprising forwarding data representing a result of a reading an array fabricated by the method of claim 12.

17. (Previously Presented) A computer-readable medium comprising a program as configured by the method of claim 1 to direct an array fabrication apparatus.

18-20. (Canceled)

21. (**Currently Amended**) A kit comprising the computer readable medium of claim 17, in packaged combination with instructions for use with ~~the same~~ **an array fabrication apparatus**.

22. (Previously Presented) The method of Claim 1, wherein said printhead assembly comprises multiple printhead groups comprising one or more printheads, each of said printhead groups capable of printing a complete set of fluids to be dispensed by said printhead assembly.

23. (Previously Presented) The method of Claim 1, wherein said entering step comprises entering printhead-related data including criteria for both the type of each of said printheads and alignment method of said nozzle plate.

24. (Previously Presented) The method of Claim 1, wherein said entering step comprises entering printhead-related data including criteria for both the number of said printheads of said printhead assembly and alignment method of said nozzle plate.

25. (Previously Presented) The method of Claim 1, wherein said entering step comprises entering printhead-related data including criteria for both the number of nozzle rows per each of said printheads and the spacing between said nozzle rows.

26. (Previously Presented) The method of Claim 1, wherein said entering step comprises entering printhead-related data comprising all of said criteria.

27. (**Cancelled**)